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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/657,024

09/05/2003

Fred S. Cook

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SPRINT COMMUNICATIONS COMPANY L.P.
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EXAMINER

SU, BENJAMIN

ART UNIT

PAPER NUMBER

2616

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

04/13/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/657,024

Applicant(s)

COOK ET AL.

Examiner

Benjamin Su

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 12/29/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. For claim 14, it is unclear which preceding claim it depends upon.

Claim Rejections - 35 USC § 103

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

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4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 2, 7, 11, 13 – 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Porter (US 2004/0218604) in view of Burst, JR. (US 2006/0227706).

Porter discloses, regarding claim 1, a method comprising:

dividing the users of the network into at least two service classes that include one class that has a lesser value than the other class (see paragraph 21, lines 1 – 3);

identifying the usage level of the lower service class (see paragraph 27, lines 11 – 15);

comparing the usage level of the lesser service class identified to the capacity of the backbone network (see paragraph 27, lines 17 – 21);

adjusting the traffic control devices (see paragraph 27, line 9, wherein system data analyzer corresponds to traffic control devices) for the lesser service class to allow sufficient capacity in the network for transport of messages for the other class (see paragraph (see paragraph 27, lines 9 – 10, 17 – 21);

Port fails to teach providing an internet protocol backbone network having a plurality of access points that include traffic control devices;

Burst, JR from the same or similar field of endeavors teach providing an internet protocol backbone network having a plurality of access points that include traffic control devices (see Figure 3, Box 202a, 202b, 202c, 304a,304b,304c,308, wherein Box 304a,304b,304c DiffServ Router correspond to access points, Box 308 IP DiffServ Network corresponds to an internet protocol backbone network, wherein Box 202a, 202b, 202c, Media Gateway with Congestion Detection correspond to traffic control devices);

Thus, it would have been obvious to a person of ordinary skill in the art at the time of the invention to use providing an internet protocol backbone network having a plurality of access points that include traffic control devices in the method taught by Porter in order to allow flexible data transmission option.

Porter fails to teach the traffic control devices at the access points to the backbone network.

Burst, JR from the same or similar field of endeavors teach the traffic control devices at the access points to the backbone network (see Figure 3, Box 202a, 202b, 202c, 304a, 304b, 304c, 308, wherein Box 304a, 304b, 304c DiffServ Router correspond to access points, Box 308 IP DiffServ Network corresponds to an internet protocol backbone network, wherein Box 202a, 202b, 202c, Media Gateway with Congestion Detection correspond to traffic control devices).

Thus, it would have been obvious to a person of ordinary skill in the art at the time of the invention to use the traffic control devices at the access points to the

backbone network in order to allow efficient data transmission by detecting network congestion.

Regarding claim 2, Porter discloses the identification of the usage level includes aggregation of the message flow over the backbone network (see paragraph 27, lines 17 – 19);

Regarding claim 7, a backbone network tool is utilized to identify the usage level (see paragraph 27, line 9, wherein the system data analyzer corresponds to a backbone network tool);

Regarding claim 11, Porter and Burst, JR. fail to teach the lesser service class includes messages that have been selectively degraded. However, it is well known in the art that messages in lower service class are degraded. Thus, it would have been obvious to a person of ordinary skill in the art at the time of the invention to use the lesser service class includes messages that have been selectively degraded in the method taught by Porter and Burst, JR. in order to allow higher throughput.

Regarding claim 13, Burst, JR discloses the traffic control devices include at least one traffic shaper (see paragraph 72, lines 6 – 10, wherein the delay algorithm processor corresponds to one traffic shaper).

Regarding claim 14, Porter discloses identification of the messages belonging to other classes before entry into the traffic shaper (see Figure 2, Box 12 Classifier, Box 16 Allocator and arrow directions connecting Classifier and Allocator);

Regarding claim 15, Burst, JR. discloses the traffic control devices include at least one media gateway (see Figure 2, Box 202a, Media Gateway).

Regarding claim 16, Porter and Burst JR. teach all the subject matter of the claimed invention as recited above and identification of the messages belonging to other classes in the media gateway (see Burst JR. paragraph 92, lines 3 – 5).

Porter and Burst JR. fail to teach identification of the messages belonging to other classes before entry into the media gateway

However, it would have been obvious to a person of ordinary skill in the art at the time of the invention to use identification of the messages belonging to other classes before entry into the media gateway in order to allow more efficient data processing by offloading the identification of other classes messages in another device.

7. Claims 3, 4, 5, 6, 9, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Porter and Burst JR. in view of Bradd (US 2003/0123388).

Porter and Burst JR., regarding claim 3, disclose all the subject matter of the claimed invention as recited in paragraph 6 of this office action.

Porter and Burst JR. fail to teach the identification of the usage level is determined by examination of the traffic level connecting the origination address range to the destination address range from the message flow over the backbone network.

Bradd from the same or similar field of endeavors teach the identification of the usage level is determined by examination of the traffic level connecting the origination address range to the destination address range from the message flow over the backbone network (see paragraph 75, lines 8 – 16, 18 – 21);

Thus, it would have been obvious to a person of ordinary skill in the art at the time of the invention to use the identification of the usage level is determined by examination of the traffic level connecting the origination address range to the destination address range from the message flow over the backbone network in the method taught by Porter and Burst JR. in order to provide reliable connection by determining if a call can be accepted (see Bradd paragraph 76, lines 1 – 8).

Porter and Burst JR., regarding claim 4, disclose all the subject matter of the claimed invention as recited in paragraph 6 of this office action.

Porter and Burst JR. fail to teach the identification of the usage level is determined by examination of the backbone network links connecting the origination addresses to the destination addresses for the message flow over the backbone network.

Bradd from the same or similar field of endeavors teach the identification of the usage level is determined by examination of the backbone network links connecting the origination addresses to the destination addresses for the message flow over the backbone network. (see paragraph 75, lines 8 – 16, 18 – 21);

Thus, it would have been obvious to a person of ordinary skill in the art at the time of the invention to use the identification of the usage level is determined by examination of the backbone network links connecting the origination addresses to the destination addresses for the message flow over the backbone network in the method taught by Porter and Burst JR. in order to provide reliable connection by determining if a call can be accepted (see Bradd paragraph 76, lines 1 – 8).

Regarding claim 5, Porter discloses collecting and analyzing the occupancy data of the backbone links to determine path occupancy levels by class of service (see paragraph 27, lines 12 – 17);
determining the amount of occupancy being utilized by the lesser service class (see paragraph 27, lines 12 – 14);
subtracting the amount of occupancy being utilized by the lesser service class from the available backbone network capacity (see paragraph 27, lines 17 – 21, wherein determining how much bandwidth requested in class 2 and 3 must be reduced implies the amount of bandwidth requested by class 2 and 3 have to be subtracted from the available bandwidth to determine the difference, which is to be reduced); and
comparing the resulting difference to the capacity required to provide service to the

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other classes of service (see paragraph 27, lines 17 – 21, in order to provide service to class 1, available bandwidth must match the aggregate bandwidth of class 2 and 3).

Regarding claim 6, Porter discloses the amount of occupancy being used by the lesser service class is statistically determined (see paragraph 27, lines 17 – 18, wherein the aggregate bandwidth required to serve the users queued in classes 2 and 3 implies the result is statistically determined).

Regarding claim 9, Porter discloses the traffic control devices are adjusted to reduce the access to the backbone internet from the lesser service class when the traffic load from the other classes increases (see paragraph 14, lines 13 – 17, paragraph 27, line 8 – 11);

Regarding claim 10, Porter discloses the traffic control devices are adjusted to increase the access to the backbone internet for the lesser service class when the traffic load from the other classes decreases (see paragraph 26, lines 18 – 24).

8. Claims 8, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Porter and Burst, JR. in view of Harris et al. (US 6999759).

Port and Burst, JR disclose, regarding claim 8, all the subject matter of the claimed invention as recited in paragraph 6 of this office action.

Porter and Burst, JR fail to teach the lesser service class is assigned a billing rate that is less than the billing rates from the other service classes.

Harris et al. from the same or similar field of endeavors teach the lesser service class is assigned a billing rate that is less than the billing rates from the other service classes (see column 12, lines 12 – 18, column 14, lines 49 – 52).

Thus, it would have been obvious to a person of ordinary skill in the art at the time of the invention to use the lesser service class is assigned a billing rate that is less than the billing rates from the other service classes in the method taught by Porter and Burst, JR. in order to better utilized off-peak bandwidth by discouraging users to transfer data during peak load periods (see column 12, lines 44 – 48).

Claim 12 is rejected the same reason as above.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Walsh (US 6763000) and Chuah (US 6226277) are cited to show methods which are considered pertinent to the claimed invention.

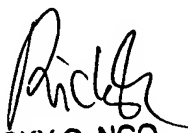
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin Su whose telephone number is 571-270-1423. The examiner can normally be reached on Monday - Friday 10 - 3 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Q. Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BZS



RICKY Q. NGO
SUPERVISORY PATENT EXAMINER